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(71) Applicant (for DE only): **PHILIPS INTELLECTUAL  
PROPERTY & STANDARDS GMBH** [DE/DE]; Stein-  
damm 94, 20099 Hamburg (DE).

(71) Applicant (for all designated States except DE, US):  
**KONINKLIJKE PHILIPS ELECTRONICS N. V.**  
[NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven  
(NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **PELZER, Heiko**  
[DE/DE]; c/o Philips Intellectual Property & Standards  
Gmb, Weissshausstr. 2, 52066 Aachen (DE).

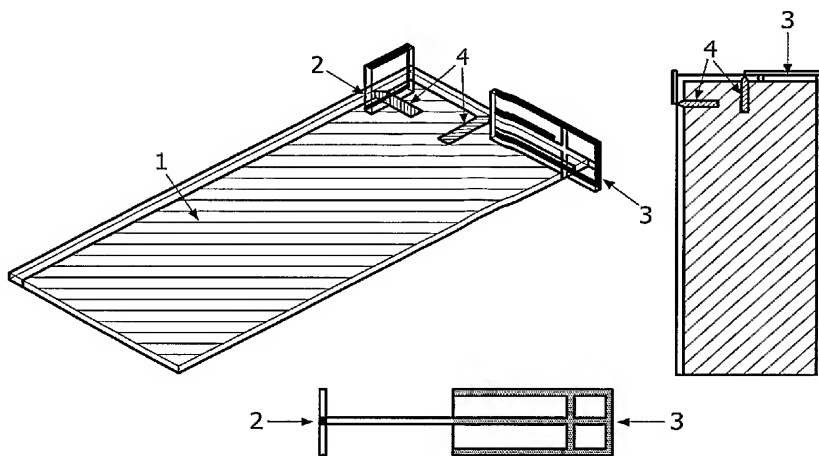
(74) Agent: **VOLMER, Georg**; Philips Intellectual Property &  
Standards Gmb, Weissshausstr. 2, 52066 Aachen (DE).

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(54) Title: ANTENNA MODULE



(57) Abstract: The invention relates to an antenna module for use in hand-held communication devices with two antennae designed to operate both in the GSM and the UMTS frequency bands. In order to realize a particularly small device it is suggested to use two dielectric block antennae (DBA) working in different frequency ranges. This type of antenna comprises a dielectric substrate with a first and a second metallic resonator structure printed on its surface and is basically known from EP 1 289 053 A2. Using two antennae reduces the total volume and consequently the mass in comparison to the case if only one antenna (DBA) is used. At the same time the radiation performance is improved. Additionally the design freedom is increased because the relative positions of the antennae are nearly independent. Furthermore the invention relates to a method to operate a telecommunication device with two antennae, in which the signal of a radio frequency generator is transferred via a power control unit to both antennae at the same time. This approach saves energy and minimizes the amount of radiation absorbed by the user.

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